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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,625	12/20/2000	Frank Bor-Her Chen	25164-67462	9358

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EXAMINER
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CLEVELAND, MICHAEL B

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/742,625	<b>Applicant(s)</b> CHEN ET AL.	
	<b>Examiner</b> Michael Cleveland	<b>Art Unit</b> 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37-62 is/are pending in the application.
- 4a) Of the above claim(s) 55-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/21/2004 has been entered.

***Election/Restrictions***

2. Newly submitted claims 55-62 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The inventions of claims 37-54 (Group I) and of claims 55-62 (Group II) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation because the method of Group I operates by cross-linking a composition during application to a compressible mat whereas the method of Group II operates by cross-linking a coating during application to a press platen and subsequent transfer to a compressible mat.

3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 55-62 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 37-54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support for the new limitation that the composition cross-links at the point of application because the specification as filed is silent as to the location at which the actual cross-linking occurs.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 37-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Hoeven '604 in view of Helmer et al. (WO 96/22338, hereafter '338).

Claims 37, 40-41, 43-44, and 47-48: '604 teaches forming a crosslinkable polymer coating on paper (a compressible mat), crosslinking it at room temperature (i.e., without heating) (col. 9, lines 43-62) and

compressing and heating the crosslinked coating and the mat to form the polymer coated substrate (col. 9, line 63-col. 10, line 4).

The composition is crosslinked at station 4 at the same time (i.e., concomitant) as it is applied at station 11.

'604 teaches the use of crosslinking acrylate polymers (col. 5, lines 1-62) to provide decorative coatings. It does not explicitly teach the use of ionically crosslinked polymers that cross-link at the point of application.

'338 teaches the formation of a quick drying paint (i.e., a decorative coating) comprising crosslinking acrylate polymers (pp. 3, 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used these polymers in place of those of '604 in order to have achieved faster curing with a reasonable

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expectation of success because they are decorative crosslinkable acrylate polymers disclosed as having the advantage of hardening quickly. Applicant states that these polymers are ionically crosslinked, thermosetting polymers, and that they crosslink as they are being applied (i.e., concomitant with application).

Claims 38-39, 45-46: '604 teaches that the substrate for the coating may be a wood panel, or a wood panel with paper attached to it (col. 6, lines 25-54). (In such embodiment, the polymerizable coating is placed on the paper (col. 6, lines 30-32). Adjacent layers may be attached by glue (col. 3, line 50-col. 4, line 5).

Claim 42: '604 contains no indication that ions are present in the radiation-crosslinkable compositions. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used covalently cross-linking polymers, particularly in view of Applicant's disclosure that fast cross-linking covalent cross-linking polymers are known.

Claims 49-50 and 53-54: '604 teaches that a top, release coating (3) may be applied to the polymer before compressing and heating (col. 9, lines 20-62).

Claims 51-52: '338 teaches that the solids content may be 40-70 % (p. 14, lines 29-36).

### ***Response to Arguments***

8. The rejections under 35 U.S.C. 102(b) as being anticipated by van der Hoeven '604 and under 35 USC 103(a) over van der Hoeven in view of Kunz are withdrawn in view of Applicant's amendment because the polymer is not cross-linked at the point of application.

9. Applicant's arguments filed 10/21/2004 have been fully considered but they are not persuasive.

Applicant argues that there is no motivation to substitute the polymers of '338 for those of '604. The argument is unconvincing because the selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07. van der Hoeven teaches the use of decorative crosslinking

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acrylate polymers. '338 indicates that its polymers are suitable decorative crosslinking acrylate polymers. Thus, their suitability for the purpose of '604 renders their use obvious. Furthermore, '338 teaches the advantage that its polymer cures quickly. Faster curing is well recognized in the art of curing resins to create greater productivity. (See the references cited below, particularly Motter).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

#### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Motter et al. (U.S. Patent 5,635,583, col. 2, lines 31-40), Moschovis et al. (U.S. Patent 4,782,129, col. 6, lines 10-25), Traver et al. (U.S. Patent 4,190,688, col. 2, lines 1-9), and Josten et al. (U.S. Patent 4,125,497, col. 2, lines 3-13) are cited as evidence that faster curing resins are recognized in the art of curing resins as advantageous.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (571) 272-1418. The examiner can normally be reached on Monday-Thursday, 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Cleveland  
Primary Examiner  
Art Unit 1762

12/28/2004